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EXAMINER

MYERS, PAUL R

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 19-21, 24-33 have been considered but are moot in view of the new ground(s) of rejection.

In regards to applicants argument that none of Burstein et al, Bates, or Shintomi teach the newly added claim limitation of the secondary voltage regulator having a greater power capacity than the primary voltage regulator, that the regulators appear to be identical: The examiner agrees. None of these references expressly teach the that the regulators can have different power capacities. Several references are now cited teach this newly added feature, including a reference previously applied.

The examiner notes applicants provided a new drawing that was identical to the objected to drawing. Applicants stated that reference character for docking station was changed from "107" to "117" however the new drawing still uses "107" for the docking station. The examiner assumes applicants accidentally resubmitted the old drawing instead of the new drawing.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "107" has been used to designate both Storage device 107 and Docking station 107. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of

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an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19-21, 24, 27, 29-31, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein et al PN 6,268,716 in view of Burgin PN 4,327,298.

In regards to claims 19 and 29: Burstein et al teaches a primary voltage regulator (the first 16 and 18 taken together) to provide primary power to a load (14) from a power source (12) the primary voltage regulator having a feedback circuit (18) to detect power supplied to the load and to control any additional voltage regulators (The additional 16's); and a secondary voltage regulator (the next 16) to selectively provide additional power to the load from the power source. Burstein et al does not teach a first and second power source and the second voltage regulator providing additional power based at least in part on the availability of the second power source or the second voltage regulator having a greater power capacity than the first voltage regulator. Burgin teaches an apparatus (figure 1) comprising: a primary voltage regulator (23) to provide primary power (output of 23) to a load (25) from at least one of a first power source (34) or a

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second power source (10); and a second voltage regulator (17) to selectively (based upon the presence of the source 10) provide additional power (output of 17) to the load from the second power source (10) based at least in part on the availability of the second power source (Abstract), wherein the secondary voltage regulator (17) has a greater power capacity than the primary voltage regulator (23) (output of voltage regulator 17 is +9v Column 2 lines 10-19, output of voltage regulator 23 is +5v Column 2 lines 20-43). It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide separate power sources and activate the additional regulators based on the availability of a line AC because this would have allowed for an uninterruptible power supply (UPS). Alternatively it would have been obvious to provide feedback to a controller in the system of Burgin because this would have allowed for greater power output control.

In regards to claim 20: Burgin teaches the first power source comprises a battery (34) and the second power source comprises an alternating current (AC) line adapter (10) and that the secondary regulator is less efficient than the first regulator that provides super regulation.

In regards to claims 21, 30 and 33: Burstein teaches the feedback circuit in the primary voltage regulator to control the secondary voltage regulator to provide the additional power if a load power reaches a threshold level. Burgin teaches supplying power from the second voltage regulator is second power is available.

In regards to claims 24 and 31: Burstein teaches a tertiary voltage regulator to detachably couple with the load (disabled), said tertiary voltage regulator to selectively provide further additional power to the load from the power source. Burgin teaches providing power based upon availability of the power source.

In regards to claim 27: Burstein teaches a feedback network to couple to the load, the primary voltage regulator, the secondary voltage regulator, and the tertiary voltage regulator, said feedback network to control the secondary voltage regulator to provide the additional power if a load power reaches a first threshold level and the second power source is available, and to control the tertiary voltage regulator to provide the further additional power if the load power reaches a second threshold level and both the tertiary voltage regulator and the second power source are available.

5. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin PN 4,327,298 in view of Burstein PN 6,268,716 as applied to claim 24 further in view of Yanagisawa PN 6,078,109.

In regards to claim 25: Burgin and Burstein teach general purpose power supplies and is silent upon possible locations for the regulators. Yanagisawa teaches a mobile computer (100), said mobile computer containing the primary voltage regulator (12), and the load (13); and a docking station to detachably receive the mobile computer (200), said docking station containing the tertiary voltage regulator (22). Burgini teaches the secondary voltage regulator,

6. Claims 26, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin PN 4,327,298 in view of Burstein et al PN 6,268,716 and Yanagisawa PN 6,078,109 as applied to claim 25 further in view of Tracy PN 6,191,943.

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In regards to claims 26 and 32: Yanagisawa does not teach thermal heat dissipation for the docked third voltage regulator. Tracy teaches active heat dissipation for the docked notebook. It would have been obvious to add heat dissipation because this would have protected the notebook from overheating.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin PN 4,327,298 in view of Burstein PN 6,268,716 as applied to claim 24 and further in view of Norris PN 5,630,148.

In regards to claim 28: Burstein teaches a variable load. Burstein however is silent as to the type of load. Norris teaches a load that has at least a low performance mode, a medium performance mode, and a high performance mode.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

PN 4,611,162 to Erratico et al teaches multiple voltage regulators each with different operating characteristics being operated together to collectively form a single regulator with greater total power out.

PN 3,414,802 to Harrigan teaches multiple voltage regulators with different output power.

PN 3,356,855 to Suzuki et al teaches multiple power sources with different power levels feeding regulators in parallel to supply a single load line.

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PN 3,971,957 to Hase teaches a system with two power sources one being an inverter and the other being a commercial power source with the inverter being expressly the primary power source and the commercial power source, ordinarily available, as being the alternate power source.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 571 272 3639. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PRM
October 26, 2006



PAUL R. MYERS
PRIMARY EXAMINER